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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/829,241      | 04/09/2001  | Yoshiaki Ogata       | 10873.661US01       | 7594             |

23552 7590 10/16/2003  
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MINNEAPOLIS, MN 55402-0903

EXAMINER

CANTELMO, GREGG

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1745

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N  
09/829,241  
Examiner  
Gregg Cantelmo

Applicant(s)  
OGATA ET AL.  
Art Unit  
1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☒ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 16, 2003 has been entered.

### ***Response to Amendment***

2. In response to the amendment received September 16, 2003:
- a. Claims 1-4 and 6 are pending with claims 5, 7 and 8 having been cancelled by Applicant;
  - b. The prior art rejections of record have been withdrawn in light of the amendment to claim 1. In particular the orientation of the unevenness as recited in claim 1 is parallel with the direction in which the battery modules are inserted. In the case of Ito, the unevenness in the housing is provided by members 32 which are perpendicular with the direction in which the battery modules are inserted.

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3. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

### ***Claim Interpretation***

4. With respect to the instant claims the Examiner has given no patentable weight to the structure of the battery.

The preamble of the claim is drawn to a mount frame *for* battery modules. While the body of the claim recites the term battery, such recitations are not sufficiently limiting to the actual presence of the battery modules in the mount frame. See MPEP 2111.02, incorporated herein.

Patentable weight has only been given to the orientation of the unevenness relative to the manner in which the prior art inserts the battery modules.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by RU-2152110-C (RU '110).

Absent a certified translation of the priority document the following rejection applies.

RU '110 discloses a mount frame for a battery module for fixing a plurality of batteries therein, the frame comprising a plurality of openings into which the batteries are inserted and removed, the frame has unevenness wherein the orientation of the grooves of each opening is parallel with the direction in which the battery modules are inserted and removed (Figure as applied to claim 1).

The planar exterior surfaces of the frame constitute stacking members upon which additional frames can be stacked upon (Fig. 1 as applied to claim 2).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 4,339,049 (Gillespie).

Gillespie discloses a mount frame for a battery module for fixing a plurality of batteries therein, the frame comprising a plurality of openings into which the batteries are inserted and removed, the frame has unevenness wherein the orientation of the grooves of each opening is parallel with the direction in which the battery modules are inserted and removed (Figure 4 as applied to claim 1).

In the case of Gillespie, the unevenness of the frame corresponds to unevenness in the adjacent cell (Fig. 4 as applied to claim 1).

Members 98 constitute stacking members upon which additional frames can be stacked upon (Fig. 1 as applied to claim 2).

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8. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 05-159755-A (JP '755).

JP '755 discloses a mount frame for a battery module for fixing a plurality of batteries therein, the frame comprising a plurality of openings into which the batteries are inserted and removed, the frame has unevenness wherein the orientation of the grooves of each opening is parallel with the direction in which the battery modules are inserted and removed (Figure 3 as applied to claim 1).

In the case of JP '755, the unevenness of the frame corresponds to unevenness in the adjacent cell (Fig. 3 as applied to claim 1).

The planar exterior surfaces of the frame constitute stacking members upon which additional frames can be stacked upon (Figs. 3, 4 and 6 as applied to claim 2).

Connecting terminals are engaged with and electrically connected to the battery terminals upon inserting of the battery into the openings (Figs. 3 and 4 as applied to claim 6).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie in view of U.S. patent No. 5,806,948 (Rowan)

The teachings of claim 1 with respect to Gillespie have been discussed above and are incorporated herein.

Additionally Gillespie discloses of the mount frame having cooling members (claim 3) and that the cooling members are channels (Fig. 4 as applied to claim 4).

The difference between claim 3 and Gillespie is that Gillespie fails to explicitly disclose that the mount frame is metal.

Rowan discloses that using battery mount frames constructed of metal is known for the purposes of providing a battery enclosure which has a durable construction in addition to strength, lightweight, and better heat transfer characteristics (paragraph bridging columns 6 and 7).

The motivation for using aluminum metal as the battery mount frame is that it provides a battery enclosure which has a durable construction in addition to strength, lightweight, and better heat transfer characteristics.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Gillespie by using aluminum metal as the battery mount frame since it would have provided a battery enclosure which had a durable construction in addition to strength, lightweight, and better heat transfer characteristics. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.



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11. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '755 in view of Rowan.

The teachings of claim 1 with respect to JP '755 have been discussed above and are incorporated herein.

Additionally JP '755 discloses of the mount frame having cooling channels 14 (claim 3) and that the cooling members are channels (Fig. 3 as applied to claim 4).

The difference between claim 3 and JP '755 is that JP '755 fails to explicitly disclose that the mount frame is metal.

Rowan discloses that using battery mount frames constructed of metal is known for the purposes of providing a battery enclosure which has a durable construction in addition to strength, lightweight, and better heat transfer characteristics (paragraph bridging columns 6 and 7).

The motivation for using aluminum metal as the battery mount frame is that it provides a battery enclosure which has a durable construction in addition to strength, lightweight, and better heat transfer characteristics.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Gillespie by using aluminum metal as the battery mount frame since it would have provided a battery enclosure which had a durable construction in addition to strength, lightweight, and better heat transfer characteristics. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll

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Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945) See also In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (703) 305-0635. The examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (703) 308-2383. FAX communications should be sent to the appropriate FAX number: (703) 872-9311 for After Final Responses only; (703) 872-9310 for all other responses. FAXES received after 4 p.m. will not be processed until the following business day. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gregg Cantelmo  
Patent Examiner  
Art Unit 1745

gc  


October 8, 2003